

LOW DIELECTRIC CONSTANT MATERIAL REINFORCEMENT FOR IMPROVED  
ELECTROMIGRATION RELIABILITY

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ABSTRACT

A reinforced semiconductor interconnect structure,  
having the following components:

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A first metal interconnect disposed in a first  
material, the first metal interconnect having a line portion  
and at least one via portion, an anode section and a  
cathode section, the via portion of the first metal  
interconnect located in the anode section, the line portion  
of the first metal interconnect having a top, bottom and  
terminus side, wherein at least a part of the bottom side of  
the line portion of the first metal interconnect in contact  
with the first dielectric;

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a first reinforcement disposed in the first material,  
the first reinforcement in contact with at least the bottom  
side of the first metal interconnect, the first  
reinforcement comprising a second material, the second  
material being electrically nonconductive; and wherein the

[illegible]